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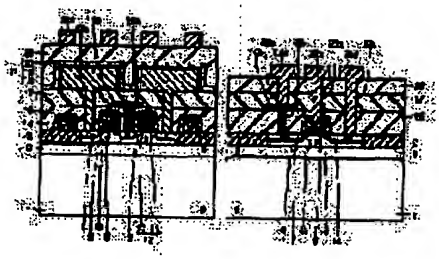
(54) SEMICONDUCTOR DEVICE AND MANUFACTURE THEREOF

(57)Abstract:
PROBLEM TO BE SOLVED: To lower the concn. of an impurity region for controlling the threshold voltage of a first transistor to enable the junction leakage current reduction, by making thicker a gate insulation film of the first transistor than that of a second transistor.
SOLUTION: A gate electrode 12 is formed through a gate insulation film 8 in a memory cell on a main surface of a p-type semiconductor substrate 1 sandwiched between source-drain regions, a gate electrode 12 is formed through a gate insulation film 9 in a peripheral circuit, the thickness of the gate insulation film 8 in the memory cell is set to be greater than that of the gate insulation film 9 in the peripheral circuit to thereby enable the concn. reduction at a p-type impurity region 4a in the memory cell. By lowering the concn. at the p-type impurity region 4a, the junction leak current can be reduced.



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